MANUFACTURE OF SEMICONDUCTOR DEVICE

Patent number: JP2000058646
Publication date: 2000-02-25
Inventor: NAKAMURA MITSUYOSHI
Applicant: NEC CORP
Classification:
- international: H01L21/768; H01L21/316
- european:
Application number: JP19980229219 19980814
Priority number(s):

Abstract of **JP2000058646**

PROBLEM TO BE SOLVED: To improve quality and flatness by thermally treating a flattened film at a low pressure after a silicon oxide film formed on a step difference part is coated with a polysiloxane based SOG(spin on glass) and it is coated with polysilazane based SOG.

SOLUTION: A field oxide film 2 is formed surrounding a diffusion region of a silicon substrate 1. After a polycrystalline silicon layer is deposited on the field oxide film 2, a gate wiring pattern 3 is formed by photolithography. On the pattern 3, a BPSG(boron phosphorus containing silicate glass) film 4 is deposited, on which an aluminum alloy layer is formed. An aluminum wiring is patterned, and aluminum wiring patterns 5 are formed, on which a silicon oxide film 6 is deposited. Polysiloxane based SOG 7 to be buried in recessed parts between the aluminum wiring patterns 5 which cannot be filled with the silicon oxide film 6 is spin-coated. The SOG 7 is coated with polysilazane based SOG 8.